

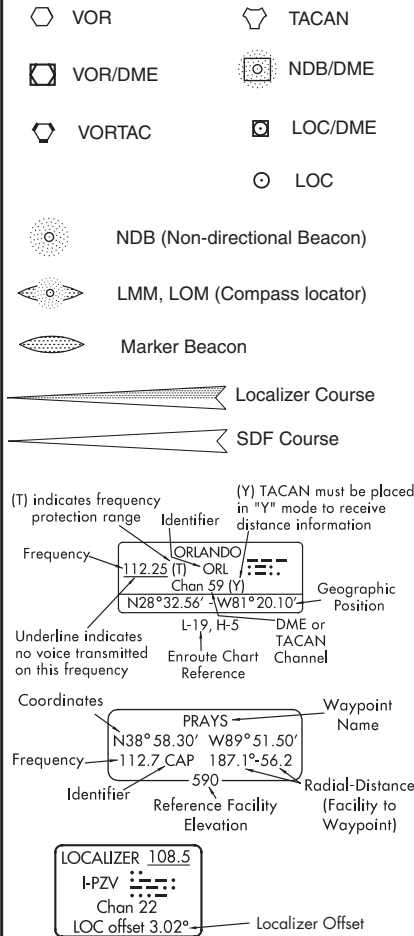
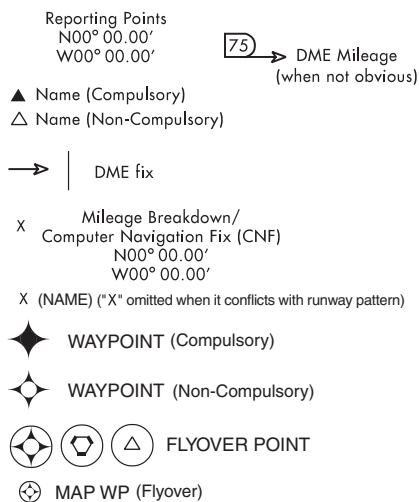
TERMINAL PROCEDURES PUBLICATION SYMBOLS

AERONAUTICAL INFORMATION

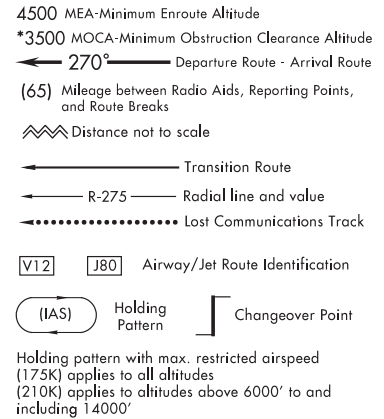
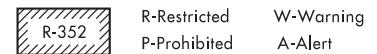
STANDARD TERMINAL ARRIVAL (STAR) CHARTS	59
DEPARTURE PROCEDURE (DP) CHARTS	59
APPROACH LIGHTING SYSTEM	60
AIRPORT DIAGRAM/SKETCH	64
INSTRUMENT APPROACH PROCEDURES PLAN VIEW	65
INSTRUMENT APPROACH PROCEDURES PROFILE VIEW	67

GENERAL INFORMATION

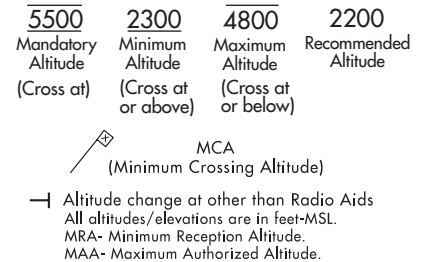
Symbols shown are for the Terminal Procedures Publication (TPP) which includes Standard Terminal Arrival Routes (STARs), Departure Procedures (DPs), Instrument Approach Procedures (IAP) and Airport Diagrams.

STANDARD TERMINAL ARRIVAL (STAR) CHARTS
DEPARTURE PROCEDURE (DP) CHARTSRADIO AIDS
TO NAVIGATIONREPORTING
POINTS/FIXES
WAYPOINTSSTANDARD TERMINAL ARRIVAL (STAR) CHARTS
DEPARTURE PROCEDURE (DP) CHARTS

ROUTES

SPECIAL USE
AIRSPACE

ALTITUDES



AIRPORTS

STAR Charts

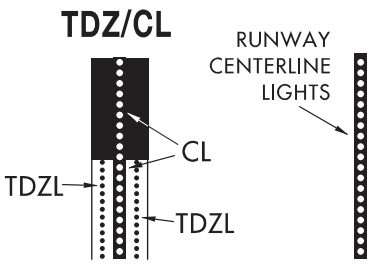
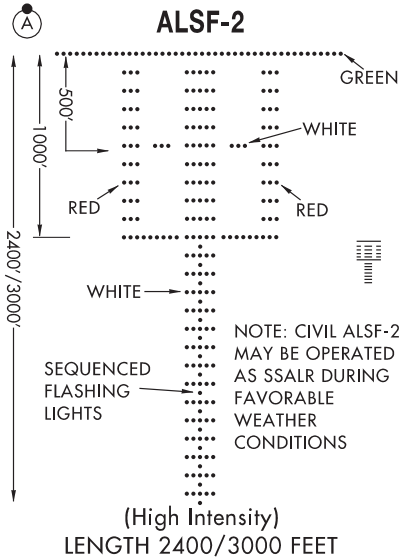
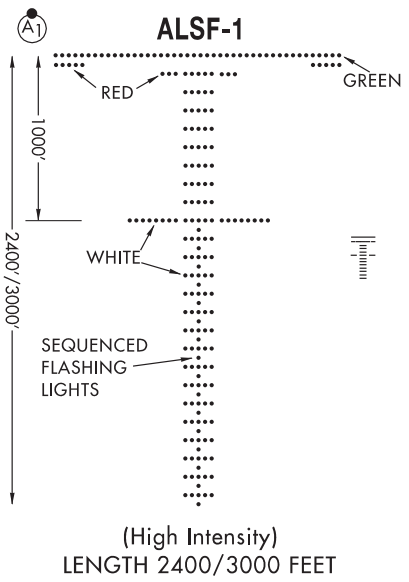
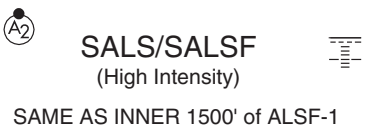
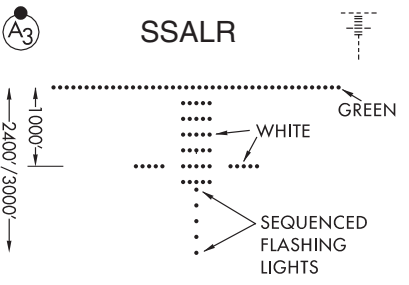
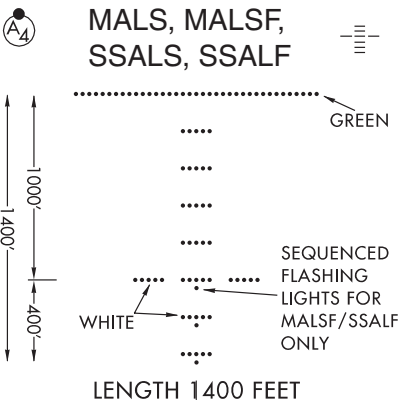
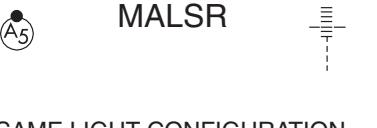
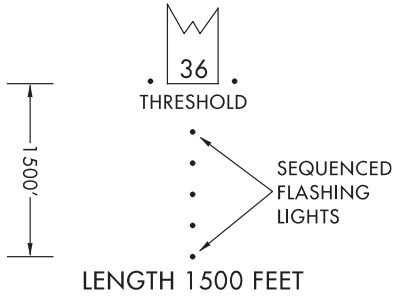


DP Charts



NOTES

- All mileages are nautical.
Indicates control tower temporarily closed UFN.
★ Indicates a non-continuously operating facility, see A/FD or flight supplement.
All radials, bearings are magnetic.
- (NAME2.NAME) - Example of DP flight plan Computer Code.
(NAME.NAME2) - Example of STAR flight plan Computer Code.
SL-0000 (FAA) - Example of a chart reference number.
- ▲ Alternate Minimums not standard.
Civil users refer to tabulation. USA/USN/USAF pilots refer to appropriate regulations.
- ▲ NA Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.
- ▼ Take-off Minimums not standard and/or Departure Procedures are published. Refer to tabulation.
- W WAAS VNAV outages may occur daily due to initial system limitations. WAAS VNAV NOTAM service is not provided for this approach.

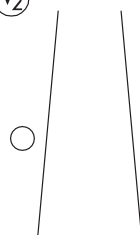
APPROACH LIGHTING SYSTEM	APPROACH LIGHTING SYSTEM
RUNWAY TOUCH-DOWN ZONE AND CENTERLINE LIGHTING SYSTEMS	
APPROACH LIGHTING SYSTEM ALSF-2	
APPROACH LIGHTING SYSTEM ALSF-1	
APPROACH LIGHTING SYSTEM	APPROACH LIGHTING SYSTEM
SHORT APPROACH LIGHTING SYSTEM	
SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS SSALR	
MEDIUM INTENSITY (MALS AND MALSF) OR SIMPLIFIED SHORT (SSALS AND SSALF) APPROACH LIGHTING SYSTEMS MALS MALSF SSALS SSALF	
MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS MALSR	
OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM ODALS	

APPROACH LIGHTING SYSTEM	APPROACH LIGHTING SYSTEM
<p>VISUAL APPROACH SLOPE INDICATOR</p> <p>VASI</p> <p>(V) VASI VISUAL APPROACH SLOPE INDICATOR WITH STANDARD THRESHOLD CLEARANCE PROVIDED.</p> <p>ALL LIGHTS WHITE — TOO HIGH FAR LIGHTS RED NEAR LIGHTS WHITE — ON GLIDE SLOPE ALL LIGHTS RED — TOO LOW</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <p>VASI 2</p> <p>THRESHOLD</p> </div> <div style="text-align: center;"> <p>VASI 4</p> <p>THRESHOLD</p> </div> <div style="text-align: center;"> <p>VASI 12</p> <p>THRESHOLD</p> </div> </div>	<p>VISUAL APPROACH SLOPE INDICATOR</p> <p>VASI</p> <p>(V₃) VASI VISUAL APPROACH SLOPE INDICATOR WITH A THRESHOLD CROSSING HEIGHT TO ACCOMMODATE LONG BODIED OR JUMBO AIRCRAFT.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <p>VASI 6</p> <p>THRESHOLD</p> </div> <div style="text-align: center;"> <p>VASI 16</p> <p>THRESHOLD</p> </div> </div>
<p>"T"-VISUAL APPROACH SLOPE INDICATOR</p> <p>"T"-VASI</p> <p>(V₁) "T"-VASI</p> <p>"T" ON BOTH SIDES OF RWY ALL LIGHTS VARIABLE WHITE. CORRECT APPROACH SLOPE- ONLY CROSS BAR VISIBLE. UPRIGHT "T"- FLY UP. INVERTED "T"- FLY DOWN. RED "T"- GROSS UNDERSHOOT.</p>	<p>PRECISION APPROACH PATH INDICATOR</p> <p>PAPI</p> <p>(P) PAPI Legend: □ White ■ Red</p> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;"> <p>Too low</p> </div> <div style="text-align: center;"> <p>Slightly low</p> </div> </div> <div style="text-align: center; margin: 10px 0;"> <p>On correct approach path</p> </div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;"> <p>Slightly high</p> </div> <div style="text-align: center;"> <p>Too high</p> </div> </div> </div>

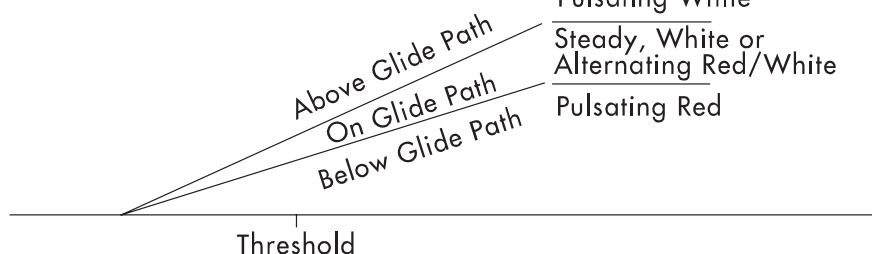
APPROACH LIGHTING SYSTEM

PULSATING VISUAL
APPROACH SLOPE
INDICATOR

PVASI

V₂

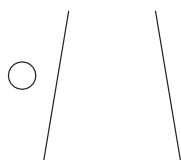
PVASI



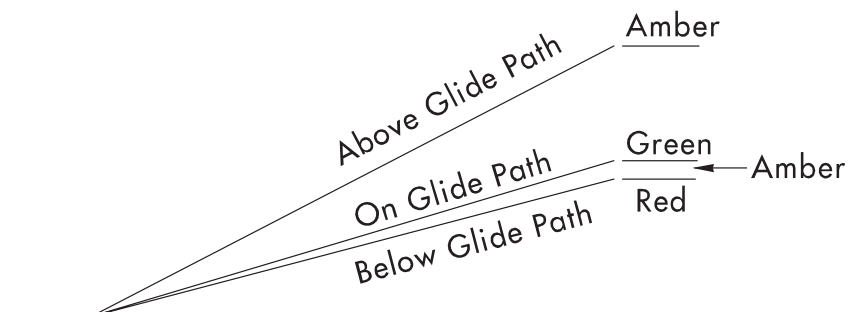
CAUTION: When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

TRI-COLOR VISUAL
APPROACH SLOPE
INDICATOR

TRCV

V₄

TRCV



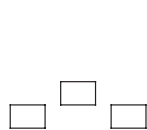
CAUTION: When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

ALIGNMENT OF
ELEMENT SYSTEMS

APAP

V₅

APAP



Above glide path











On Glide Path












Below Glide Path

Painted panels which may be lighted at night.
To use the system the pilot positions the aircraft
so the elements are in alignment.

AIRPORT DIAGRAM/SKETCH		AIRPORT DIAGRAM/SKETCH		
ARRESTING GEAR	<div><div> uni-directional</div><div> bi-directional</div><div> Jet Barrier</div><div> Arresting System</div><div>ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.</div></div>		NOTES	<div><div> U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.</div><div>Approach light symbols are shown in the Flight Information Handbook.</div><div>Airport diagram scales are variable.</div><div>True/magnetic North orientation may vary from diagram to diagram</div><div>Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.</div><div>Positional accuracy within ±600 feet unless otherwise noted on the chart.</div><div>NOTE: All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)</div></div>
	REFERENCE FEATURES	<div><div><div><div>■ Buildings</div><div>● Tanks</div><div>△ Obstruction</div><div>△ Highest Obstruction</div><div>☆ Airport Beacon</div><div>✕ Runway Radar Reflectors</div><div>○ Hot Spot</div><div>■ Control Tower #</div></div><div># When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.</div><div>Helicopter Alighting Areas</div><div></div><div>Negative Symbols used to identify Copter Procedures landing point</div><div></div><div>TDZE 123 Runway TDZ elevation</div><div>—— 0.3% DOWN</div><div>0.8% UP —— Runway Slope</div><div>(shown when runway slope equals or exceeds 0.3%)</div><div>NOTE: Runway Slope measured to midpoint on runways 8000 feet or longer.</div><div>A  symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.</div></div></div>		

AIRPORT DIAGRAM/SKETCH

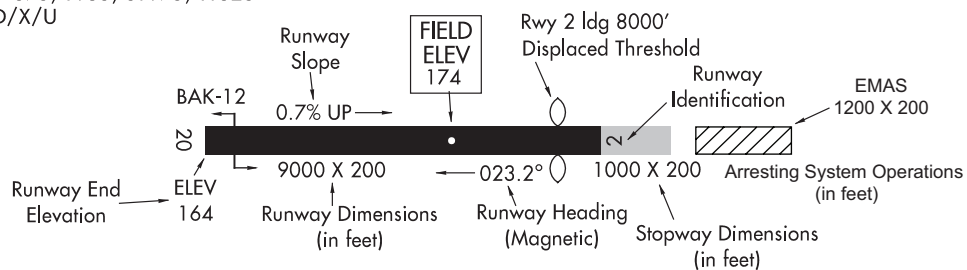
RUNWAYS

	Hard Surface		Closed Runway
	Other than hard surface		Closed Taxiway
	Stopways, Taxiways, Parking Areas		Under Construction
	Displaced Threshold		Metal Surface
			Runway Centerline Lighting

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.




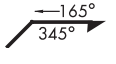


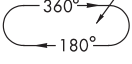



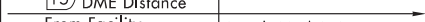
Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.











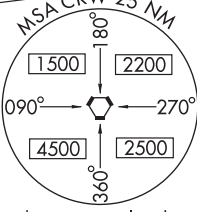
Refer to the appropriate Supplement/Airport Facility Directory for applicable codes e.g.,
RWY 14-32 S75, T185, ST175, TT325
PCN 80 F/D/X/U

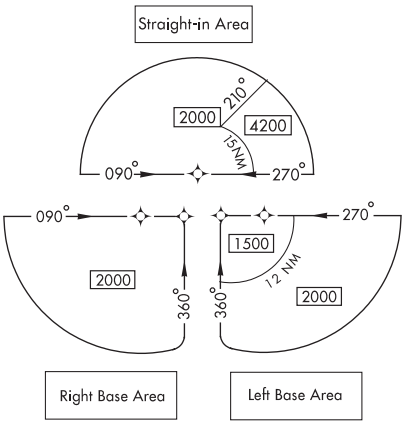
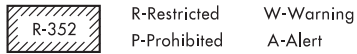









SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4B.

INSTRUMENT APPROACH PROCEDURES PLAN VIEW	
TERMINAL ROUTES	<p>Procedure Track </p> <p>Missed Approached </p> <p>Visual Flight Path </p> <p>Procedure Turn (Type degree and point of turn optional)</p>  <p>3100 NoPT 5.6 NM to GS Intcpt 045° (14.2 to LOM)</p> <p>Minimum Altitude 2000 155° (15.1)</p> <p>Feeder Route Mileage Penetrates Special Use Airspace</p>
HOLDING PATTERNS	<p>In lieu of Procedure Turn</p>  <p>Missed Approach</p>  <p>Arrival</p>  <p>HOLD 8000</p> <p>Limits will only be specified when they deviate from the standard. Holding pattern with max. restricted airspeed: (175K) applies to all altitudes. (210K) applies to altitudes above 6000' to and including 14000'. DME fixes may be shown. Arrival Holding Pattern altitude restrictions will be indicated when they deviate from the adjacent leg.</p>
REPORTING POINTS / FIXES/ WAYPOINTS	<p>NAVAID Fix</p> <p>▲ Compulsory Position Report △ Non-Compulsory Position Report</p> <p>RNAV Waypoint</p> <p>◆ Compulsory Position Report ◇ Non-Compulsory Position Report</p> <p>Flyover Point Intersection MAP WP (Flyover)</p>    <p>Computer Navigation Fix (CNF) x (NAME) ("x" omitted when it conflicts with runway pattern)</p> <p>15 DME Distance From Facility</p>  <p>ARC/DME/RNAV Fix</p> <p>R-198 Radial line and value</p> <p>LR-198 Lead Radial</p> <p>LB-198 Lead Bearing</p>

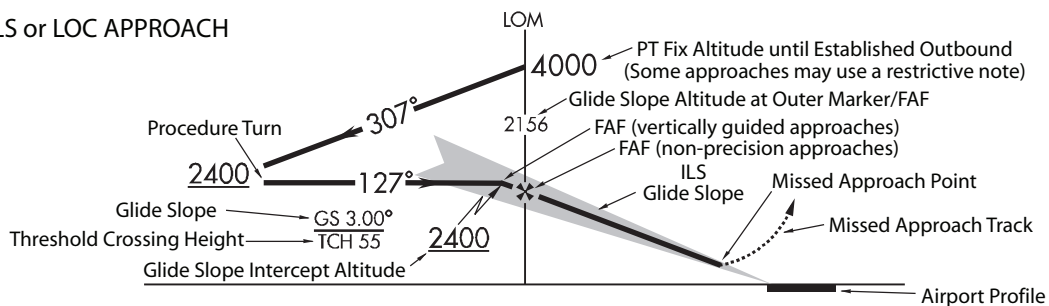
INSTRUMENT APPROACH PROCEDURES PLAN VIEW	
RADIO AIDS TO NAVIGATIONS	<p>VOR </p> <p>TACAN </p> <p>NDB </p> <p>VOR/DME </p> <p>VORTAC </p> <p>NDB/DME </p> <p>LOM/LMM (Compass locator at Outer/Middle Marker) </p> <p>Marker Beacon </p> <p>Localizer (LOC/LDA) </p> <p>Course Right side shading-Front Course; Left side shading-Back Course</p> <p>SDF Course </p> <p>180° MLS Approach Azimuth</p> <p>MLS Identifier</p> <p>MICROWAVE Chan 514 M-VDZ Glidepath 6.20° DME 111.5 Chan 48(Y)</p> <p>(Y) TACAN must be in "Y" mode to receive distance information.</p> <p>LOC/DME</p> <p>LOC/LDA/SDF/MLS Transmitter (shown when installation is offset from its normal position off the end of the runway.)</p> <p>LOCALIZER 108.5 I-PZV Chan 22 LOC offset 3.02°</p> <p>Localizer Offset</p> <p>Waypoint Data</p> <p>Coordinates: N38° 58.30' W89° 51.50'</p> <p>Frequency: 112.7 CAP 187.1°-56.2</p> <p>Identifier: 590</p> <p>Reference Facility Elevation</p> <p>Radial-Distance (Facility to Waypoint)</p> <p>Primary Navaid with Coordinate Values</p> <p>Secondary Navaid</p> <p>LIMA 114.5 LIM Chan 92 S12°00.80' W77°07.00'</p> <p>LMM LIMA 248 NT</p>
MINIMUM SAFE ALTITUDE	<p>Facility Identifier</p> <p>MSA CRW 25 NM</p>  <p>(arrows on distance circle identify sectors)</p>

INSTRUMENT APPROACH PROCEDURES PLAN VIEW	INSTRUMENT APPROACH PROCEDURES PLAN VIEW
TERMINAL ARRIVAL AREAS	 <p>Minimum MSL altitudes are charted within each of these defined areas/subdivisions that provide at least 1,000 feet of obstacle clearance, or more as necessary in mountainous areas.</p>
SPECIAL USE AIRSPACE	
OBSTACLES	<ul style="list-style-type: none"> • Spot Elevation • Highest Spot Elevation △ Obstacle △ Highest Obstacle ± Doubtful accuracy
FACILITIES / FIXES	<div> <div>FM IM MM NDB OM VOR VORTAC TACAN WP</div> <div>FIX INT</div> </div>
ALTITUDES	<div> <div> <div>5500</div> <div>Mandatory Altitude (Crossat)</div> </div> <div> <div>2300</div> <div>Minimum Altitude (Crossat or above)</div> </div> <div> <div>4800</div> <div>Maximum Altitude (Crossat or below)</div> </div> </div> <div> <div>2200</div> <div>Recommended Altitude</div> </div> <div> <div>5000 3000</div> <div>Mandatory Block Altitude</div> </div> <div>  <div>MCA (Minimum Crossing Altitude)</div> </div>
MISCELLANEOUS	<div>  <div>VOR Changeover Point</div> </div> <div> <div> <div>RWY 15</div> <div>S12°00.52'</div> <div>W77°06.91'</div> </div> <div>End of Rwy Coordinates (DOD only)</div> </div> <div>  <div>Distance not to scale</div> </div> <div>  <div>International Boundary</div> </div> <div>  <div>Final Approach Fix (FAF) (for non-precision approaches)</div> </div> <div>  <div>Glide Slope/Glide Path Intercept Altitude and final approach fix for vertically guided approach procedures.</div> </div> <div> <div>2400</div> <div>Visual Descent Point (VDP)</div> </div> <div>  <div>Visual Flight Path</div> </div>

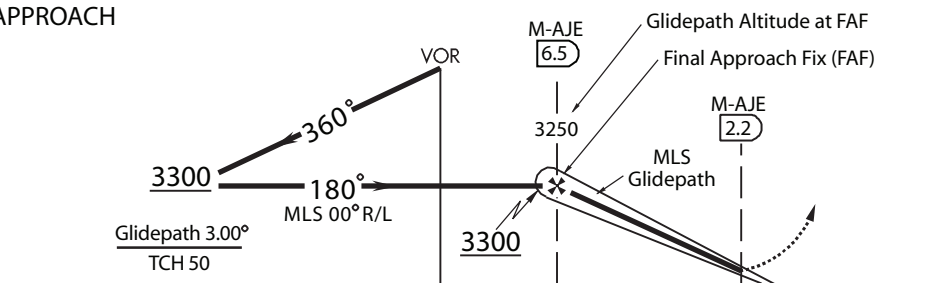
INSTRUMENT APPROACH PROCEDURES PROFILE VIEW

PROFILE VIEW

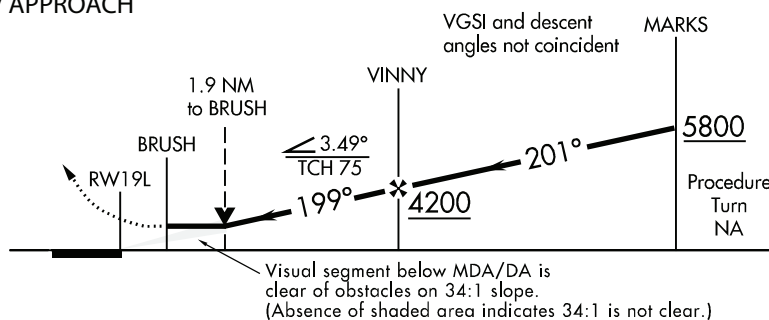
ILS or LOC APPROACH



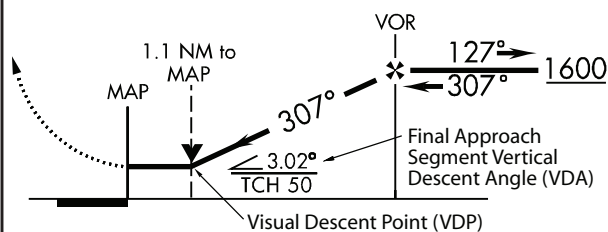
MLS APPROACH



RNAV APPROACH



NON PRECISION



DESCENT FROM HOLDING PATTERN

